

REMARKS

A typographical error was corrected in each of claims 4 and 5. The amendment was not made for a reason related to patentability, and the full range of equivalents for these claims should remain intact.

Claims 1-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abdelgany et al. (US 6,584,090), and further in view of Shalom et al. (US 6,166,601) and further in view of Abdelmonem et al. (US 6,622,028). The rejection is respectfully disagreed with, and is traversed below.

Abdelgany et al. disclose a circuit arrangement for CDMA/GSM operation. The Examiner is agreed with that Abdelgany et al. do not disclose "circuitry to compensate for the non-linearity of both transmit and receive filters". More specifically, and as is recited in for example claim 1, this reference does not disclose a circuit arrangement wherein there is "circuitry, responsive to a currently selected RF channel, for compensating for a non-ideal operation of said RF filters over a full bandwidth range of said transmit and receive frequencies."

The Examiner then cites Shalom et al. for disclosing a transceiver that applies digital equalization to an RF amplifier to produce highly linear amplification, and refers to col. 3, lines 29-65. The Examiner continues by stating that it would have been obvious "to implement digital equalization for both the transmit and receive amplifiers for the advantage of producing a highly linear response from the amplifiers".

It is first noted that Shalom et al. are concerned only with the transmit outputs of the multiple transceivers 22, 24, 26 shown in Figs. 1, 2 and 3, which are combined and applied to a single (common) base station transmitter 98. The total bandwidth of these signals is about 25 MHz (see col. 7, lines 17-31). As is stated in col. 3, lines 29-65, the goal is to digitally equalize the transceiver signals to correct for gain and phase distortions introduced by the power amplifier, as well as other elements of the feedforward amplifier.

Based at least on the stated purposes of the Shalom et al. circuitry, i.e., to digitally equalize transceiver signals to correct for gain and phase distortions introduced by a transmitter power amplifier, as well as other elements of the feedforward amplifier, it is submitted that one skilled in the art would not find it obvious to implement digital equalization for **both** transmit and receive amplifiers. This is true at least for the reason that Shalom et al. are not seen to discuss in any detail the characteristics of the receiver part of the transceivers 22, 24, 26 shown in Figs. 1, 2 and 3, or the characteristics of any receiver amplifiers, or whether such receive amplifiers would benefit from any type of equalization. It is again noted that Shalom et al. desire to use digital equalization to correct for gain and phase distortions introduced by the **transmitter power amplifier, as well as other elements of the feedforward amplifier**. As such, it is clearly not admitted that one skilled in the art would have found it obvious "to implement digital equalization for both the transmit and receive amplifiers for the advantage of producing a highly linear response from the amplifiers", as stated by the Examiner.

Still further, one may assume that any equalization that may be applied would be applied within the bandwidth of the "transmitter power amplifier, as well as other elements of the feedforward amplifier", and not within any bandwidth of the (not described) receiver amplifiers.

Turning now to Abdelmonem et al., what is disclosed is simply a high temperature superconductor (HTS) filter 58 used in a base station receiver wherein

"in some embodiments of the present invention, an equalizer **may be included to compensate for variances in group delay introduced by the HTS filter 58 within the passband**. Equalization may be desirable when the aforementioned HTS path is utilized in connection with certain wide bandwidth communication systems, such as W-CDMA."

Thus, the Abdelgany et al. reference teaches a transceiver having transmit and receive filters, where in the Fig. 4 embodiment cited by the Examiner:

"..the RF filters in the CDMA transmit and receive paths of CDMA-900 and CSM-900 communication transceiver 180 have different passbands as compared

to those in FIG. 3. First CDMA transmit RF filter-74, second CDMA transmit RF filter 78, and duplexer 82 have transmit passbands encompassing the CDMA-900 transmit band of about 824-849 MHZ. Duplexer 82 and CDMA receive RF image reject filter 92 have receive passbands approximately equivalent to the CDMA-900 receive band of about 869-894 MHZ" (col. 13, lines 5-14),

whereas Shalom et al. teach digital equalization to correct for gain and phase distortions introduced by the **transmitter power amplifier, as well as other elements of the feedforward amplifier**, and Abdelmonem et al. teach a HTS filter 58 used in a base station receiver, where an equalizer **may be included to compensate for variances in group delay introduced by the HTS filter 58 within the passband.**

The proposed combination of Shalom et al. and Abdelmonem et al. with Abdelgany et al. thus clearly does not suggest or disclose, as in claim 1, "**circuitry, responsive to a currently selected RF channel, for compensating for a non-ideal operation of said RF filters over a full bandwidth range of said transmit and receive frequencies**", or as in claim 8, a method to operate a mobile station where "**responsive to a currently selected RF channel, compensating for a non-ideal operation of said RF filters over a full bandwidth range of said transmit and receive frequencies**".

In that the independent claims 1 and 8 are clearly patentable over the Examiner's proposed combination of references, then dependent claims 2-7 and 9-14 are also patentable at least for this reason alone.

The Examiner is respectfully requested to reconsider and remove the rejections of claims 1-14 under 35 U.S.C. 103(a) based on the proposed combination of Abdelgany et al., Shalom et al. and Abdelmonem et al., and to allow claims 1-14.

Claims 15-20 are newly added, and are also deemed to patentable for the reasons argued above. Claim 15 is drawn to a circuit that comprises:

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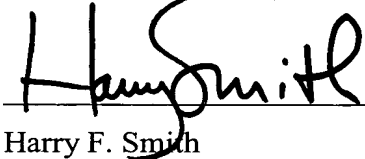
"means for coupling to a transceiver having a transmitter circuit comprising at least one transmit radio frequency (RF) filter that passes a transmit band of radio frequencies that is partitioned into transmit RF channels and a receiver circuit having at least one receiver RF filter that passes a receive band of radio frequencies that is partitioned into receive RF channels and **means for selectively compensating, in accordance with a currently used RF channel, for at least one of RF filter operation in a transmit RF channel that is nearest to the receive band of RF frequencies and for RF filter operation in a receive RF channel that is nearest to the transmit band of RF frequencies**" (emphasis added).

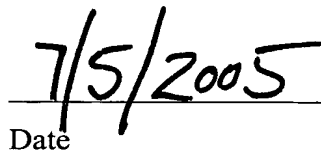
Support for claim 15 can be found throughout the specification such as at page 3, lines 5-14, and page 8, lines 18-26. No new matter is added.

Claim 15 is clearly also allowable over the proposed combination of Abdelgany et al., Shalom et al. and Abdelmonem et al., as are claims 16-20.

An early notification of the allowability of claims 1-20 is earnestly solicited.

Respectfully submitted:


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